

On page 2, please replace the paragraph beginning "FIGURE 1 shows the base sequence of a cDNA..." with the following paragraph:

B¹
-FIGURES 1A and 1B shows the base sequence of a cDNA (SEQ ID NO: 1) according to the invention as well as the amino acid sequence (SEQ ID NO: 2) derived therefrom, of a (PVP) according to the invention.-

On page 2, please replace the paragraph beginning "Thus, the subject matter of the present invention..." with the following paragraph:

B²
-Thus, the subject matter of the present invention is represented by a protease-related protein, the protein comprising the amino acid sequence of FIGURES 1A and 1B (SEQ ID NO:2) or an amino acid sequence differing therefrom by one or more amino acids.-

On page 2, please replace the paragraph beginning "The third gene codes for a protein which has homologies..." with the following paragraph:

B³
-The third gene codes for a protein which has homologies with respect to a protease of the kallikrein family, optionally a protease activity, but differs from a known protease of the kallikrein family on the DNA level by hybridization under normal conditions. Such a protein has the amino acid sequence of FIGURES 1A and 1B (SEQ ID NO: 2) or an amino acid sequence differing therefrom by one or more amino acids. Furthermore, the applicant has found that when the gene product of the whn gene is lacking the genes of Ha3 and CK15 are underexpressed whereas the gene of the above protein is overexpressed.-

On page 2, please replace the paragraph beginning "(a) the DNA of FIGURE 1 or a DNA differing therefrom by one or more base pairs..." with the following paragraph:

B4
--(a) the DNA of FIGURES 1A and 1B (SEQ ID NO: 1) or a DNA differing therefrom by one or more base pairs,
(b) a DNA hybridizing with the DNA of (a), or
(c) a DNA related to the DNA of (a) or (b) via the degenerated genetic code.--

On page 3, please replace the paragraph beginning "A section of the DNA of FIGURE 1 was deposited..." with the following paragraph:

B5
--A section of the DNA of FIGURES 1A and 1B (SEQ ID NO: 1) was deposited with the DSMZ (*Deutsche Sammlung von Mikroorganismen und Zellkulturen* [German-type collection of microorganisms and cell cultures]) as pRDA2-1a under DSM 11522 on April 23, 1997.--

On page 6, please replace the paragraph beginning "The following oligonucleotide adaptor pairs were required for the RDA..." with the following paragraph:

B6
--The following oligonucleotide adaptor pairs were required for the RDA:

R-Bgl -12: 5' -GATCTGCGGTGA- 3'(SEQ ID NO: 3)

R-Bgl -24: 5' -AGCACTCTCCAGCCTCTCACCGCA -3' (SEQ ID NO: 4)

R-Bgl -12: 5' -GATCTGTTTCATG -3' (SEQ ID NO: 5)

R-Bgl -24: 5' -ACCGACGTCGACTATCCATGAACA -3' (SEQ ID

NO: 6)

N-Bgl -12: 5' -GATCTTCCCTCG -3' (SEQ ID NO: 7)

N-Bgl -24: 5' -AGGCAACTGTGCTATCCGAGGGAA -3' (SEQ ID

NO: 8).

On page 16, please replace the paragraph beginning "Thereafter, those DNA fragments which proved to be "real" difference products..." with the following paragraph:

Thereafter, those DNA fragments which proved to be "real" difference products in the Southern analysis, were investigated by means of Northern hybridizations: RNAs from the investigated tissues (whn(+/+) skin-cDNA and nu/nu skin-cDNA) were blotted and hybridized with the radioactively labeled cloning products. By this, the differential expression of these sequences was confirmed in the investigated tissues. An analysis of the sequences yielded the cDNA of FIGURES 1A and 1B (SEQ ID NO: 1) according to the invention.

On page 16, please replace the paragraph beginning "For the preparation of a (PVP) according to the invention..." with the following paragraph:

For the preparation of a (PVP) according to the invention, the vector pBSNot-PVP of Example 1 is cleaved by BamHI, the DNA coding for (PVP) is isolated and inserted in the expression vector pQE-8 (Quiagen company) cleaved by BamHI. The expression plasmid pQ/PVP is obtained. Such a

plasmid codes for a fusion protein comprising 6 histidine residues (N terminus partner) and the (PVP) of FIGURES 1A and 1B (SEQ ID NO: 2) according to the invention (C terminus partner). pQ/PVP is used for transforming *E. coli* SG 13009 (Gottesman *et al.*, 1981, *J. Bacteriol.* 148:265-273). The bacteria are cultivated in an LB broth with 100 µg/ml ampicillin and 25 µg/ml kanamycin and induced with 60 µM isopropyl-1β-D-thiogalactopyranoside (IPTG) for 4 h. The addition of 6 M guanidine hydrochloride serves for achieving lysis of the bacteria, thereafter a chromatography (Ni-NTA resin) is carried out with the lysate in the presence of 8 M urea corresponding to the instructions of the manufacturer (Quiagen company) of the chromatography material. The bound fusion protein is eluted in a buffer having pH 3.5. After its neutralization, the fusion protein is subjected to an 18 % SDS-polyacrylamide gel electrophoresis and dyed with Coomassie blue (Thomas and Kornberg, 1975, *J. Mol. Biol.* 149:709-733). In this way, a (fusion) protein according to the invention can be prepared in highly pure form.-

B⁸
Cont

Marked up copies of the following amended paragraphs are attached hereto as
Appendix A.

IN THE CLAIMS

Please amend the claims as follows:

sub C17
B⁹
8. (Amended) A method for the negative regulation of the keratinization of hair, comprising administering in a therapeutically effective amount a protease-related protein, said protein comprising the amino acid sequence (SEQ ID NO: 2) or an amino acid sequence differing therefrom by one or more amino acids.